

## Application of Multimedia Network Technique to Teaching Chinese as a Foreign Language

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### 1. Foreword

Multimedia network technique has been applied to many fields. It changes not only the life of people, but also ideas and conceptions. With the rapid development of multimedia network technique and the arrival of network times, traditional education is faced with profound transformation. Multimedia network technique has been applied to many branches of learning. But as to teaching Chinese as a foreign language, the application of multimedia network technique is still a beginning and far from wide spread and popularization.

Compared with traditional method of teaching, the advantages of multimedia network teaching are obvious. It creates an ideal teaching and learning environment. How to apply it to the practice of Chinese teaching is an urgent problem to be considered.

### 2. The characteristics and defects of traditional Chinese teaching.

Over a long period of time, we have been applying traditional method in the field of Chinese teaching. Teachers, regarded as the center of classroom, lectures, while students practice according to what have been taught. During the exploration and practice of these years, we have accumulated a set of relatively successful experiences, such as the principle of teaching only the essential and ensuring plenty of practice, the principle of proceeding from easy part to difficult part and following in order and advancing step by step, the method of combining structure with function while teaching grammar, the method of situated teaching, etc. Utilizing traditional Chinese teaching method, teacher can take effective steps to control the teaching activity and pass on knowledge to students in definite time.

Traditional Chinese teaching does have many advantages. However, with the pass of time and development of technology, its defects have been exposed gradually.

2.1 Students are in passive position in the course of learning. Teacher is regarded as the center of classroom, while students only passively learn what has been taught. This method is not favorable to develop the initiative and creativity of students.

2.2 It is difficult to consider the individual needs of students. The individual conditions of students (such as age, sex, intelligence, learning attitude, etc.) are different. Restricted by time and

condition, we are forced to pay much more attention to general factors and neglect specific factors during teaching period. In the classroom, we have to let students accept knowledge in the same way and study at nearly the same speed. Some students are full, while others are still hungry. It is difficult to teach students in accordance with concrete condition and specific problem of each student.

2.3 The ways for students to receive information are only listening and reading. The objects of listening and reading are pronunciations and characters, which are not audio \_visual and liable to make students nervous. Furthermore, the ways to deal with pronunciations and characters are limited. Students are liable to form a kind of regular and stylized learning conception and lose their participatory enthusiasm and creativity.

2.4 Teacher has to spend lots of time and energy on making the communicative context. Under the situation of traditional teaching, teacher has to describe an imaginary scene by narrating orally or writing on the blackboard. Students passively play the role of certain character and carry on practice. They either choose words and build sentences stiffly or mechanically memorize the original sentences on the book without any changes. It is difficult to achieve the goal of improving the language communicative ability of students.

2.5 The supervision over students by teacher is weak during the course of teaching. In the classroom, teacher can discover the studying condition of some students by putting questions to them. However, teacher can not put questions to students one by one and supervise all of them. When students practice by dividing into several groups, teacher can only find out the condition of some groups. It is impossible to supervise all the groups. Furthermore, there is no effective way to supervise and examine whether students have previewed or reviewed the lessons.

### 3. The characteristic and advantages of multimedia network technique.

Multimedia teaching appeared in the 1980 's. But at that time, it only refers to adopting some kinds of electronic media (such as slide show, projector, tape recorder, videotape, etc.) to teaching and studying. It is called multimedia combination teaching or audiovisual teaching. From the 1990' s, with the development and wide application of computer, multimedia computer has replaced the status of many kinds of original teaching media step by step. Consequently, multi\_\_teaching now refers in particular to the teaching activity that applies multimedia computer and draws support from the multimedia teaching software made in advance. It is also called CAI (Computer Assisted Instruction).

Now, with the combination of multimedia technique and network technique, a completely new multimedia network teaching mode has taken shape and developed quickly.

The advantages of multimedia network teaching are as follows.

3.1 Utilizing multimedia to transmit information, we can provide students with varied exterior stimulation. By carrying out a great deal of experiment, experimental psychologists have drawn such a conclusion that one can remember 10 percents of the content that has been read, 20 percents of what has been heard, 30 percents of what has been seen, 50 percents that has been heard and seen simultaneously, while 70 percents that has been said by oneself during the course of communication. That is to say, if one can see and hear the information at the same time and then express it through communication, he or she can get more knowledge than by reading or listening alone. Multimedia network aggregates sound, drawing, picture and script. It can arouse many kinds of sensory stimulation, such as vision, hearing, etc. On the other hand, it increases the information that can be accepted by students, which is helpful to expand the storage of knowledge during Chinese learning process. It also arouses the attention and participant enthusiasm of students. By this way, we get the best result of learning.

3.2 Information can be obtained and transmitted by super textural pattern. Traditional textbooks are arranged into chapters and sections in liner sequence. However, multimedia network technique employs a kind of reticulated structure to organize information. Multimedia network teaching material has no fixed order. It does not demand that learners should obtain information in definite order, so that one can learn according to one's own thinking. It can suit the learning style and pace of each student. In this way, personalized teaching is fulfilled.

3.3 During the teaching and learning process, interaction is fully reflected. Interaction between human being and computer is a distinct feather of computer. Multimedia network makes the content and fashion of interaction between human and computer rich and varied. We have the aid of television and videotape in Chinese classroom. Though television and videotape also use sound, drawing, picture, and script as media, learners can only passively receive the information. Utilizing multimedia network, learners can not only receive information through videotape or CD - Rom, but also display information through indicating media, or convey information through transmitting media. Students participate in the teaching activity directly. The study enthusiasm of students is aroused. At the same time, teacher can make evaluation according to the feedback from students.

3.4 The capacity of teaching information is huge. With the acceleration of operating speed and enlargement of capacity, computers provide more effective and convenient tools for education. Teachers and students can take advantage of computers to obtain, process, save and collect information much more conveniently. It is beneficial to the improvement of effect and efficiency of teaching.

3.5 We can share teaching resources and exchange information through multimedia network. Utilizing multimedia network technique, we can realize the optimization of teaching resources and make the resources of different region each supply what the other needs, divide the work and

coordinate through network. The utilization ratio of teaching rises rapidly, and it breaks the restriction of time and space.

#### 4.How to apply multimedia network technique to Chinese teaching.

We can utilize multimedia network technique in the service of classroom teaching through instruction courseware. Courseware can not only save, transmit, exchange, explain and process education information, but also choose, evaluate and control it. The effect of classroom teaching depends on the quality of courseware, so that the design of courseware is the base of multimedia network teaching.

The object of applying multimedia network technique to making software and carrying out classroom teaching is to have students learn much efficaciously. Ordinarily, courseware includes explanation of knowledge, illustration with examples, demonstration, quiz and diagnosis, feedback and evaluation, etc.

##### 4.1 Total design.

We should choose a relatively complete unit of teaching materials according to the characteristic of each course, then design a model courseware of one teaching unit.

We can define the total style, interface, style of guide, source material and content of manuscript through design of model courseware.

4.2 Organization of contents. Contents of the course are organized by modules. Each module is independent. The organization of the contents takes web page with good guiding structure as dominant factor. It can be linked to characteristic network or other teaching courseware.

According to the requirement of concrete knowledge, we can adopt many kinds of forms such as text, sound, photo, animated cartoon, etc. to expressing the content of the course. Various kinds of multimedia information are designed and chosen for the sake of showing the content of certain point of knowledge and attaining the teaching objective of certain level. However, not all content are suitable for making courseware, In general, while making multimedia courseware, we should pay attention to some factors. For example, written illustration, background material support, explanation by dubbing, utilizing animated cartoon to display major process, etc.

4.2.1 Background contents that can evoke learning intention, such as customs costumes, architecture, traditional opera, etc. They can provide strong visual stimulation.

4.2.2 Difficult point in teaching process, such as prologue with special usage, grammar item needing demonstration with motion, for example ,directional complement.

4.2.3 Teaching items with objective answers, which students can make self\_evaluation. For example, objective exercise designed in the light of certain words and expressions or grammar items.

4.2.4 Sound, picture, animated cartoon, short drama, etc. They can arouse self-expressing enthusiasm of students. Background picture having no relationship with the content of the course should be deleted, so do the unnecessary internal details on the picture. Be sure not to make garish picture for the sake of pleasing to eye, which will divert the attention of students. Utilizing network we can provide students with a large quantity of pictures, helping students understand the content of the text. However, it is unsuitable to use excessively large pictures, for their conveying speed is too slow.

4.3 Expression of contents. We should endow the teaching contents with certain artistic form of expression, in order to arouse the interest in study and enthusiasm of participation. We should excavate the internal expressing ability of the contents of teaching and take advantage of multimedia. Art design, animated cartoon and subtitle should be eye-catching, beautiful and creative. Web page should have distinct principal part, harmonious tableau and appeal.

4.3.2 We should master the characteristic of attention and design corresponding tactics to arouse and control the attention of students.

Attention is important to study. Without attention, one cannot study at all. Something indefinite can arouse great attention. When designing courseware, we can arrange considerate indefinite factors, so as to encourage students to inquire further into the subject. Of course, the degree is various according to different learning task.

4.3.3 We should try to make the descriptive script succinct and precise. When writing in Chinese, it is better to adopt song typeface and bold typeface. Point size should neither be too small nor change too frequently. Background color should be in tune with foreground color of the typeface, so as to reduce the fatigue from reading on the screen. The purpose of utilizing photograph and videotape is to make the focal points and difficult points stand out and increase the reliability. Web page of each course should maintain unified style and operational interface.

4.3.4 When arranging teaching information, we should pay attention to the rhythm and make tension alternate with relaxation. The information and content of teaching get deepened through the symbolization of sound and pictures, so that the focal points and difficult points of teaching are solved effectively. However, it is difficult to keep high attention for a long time in the classroom, we must try every means to arouse the attention of students. For example, using arrows, underlines, circles or adding square frame across information concerned, inserting caption or quiz during the course of image presentation, etc.

Another effective method is to tell students what should be paid attention to. Other tactics can also be adopted, such as changing the style of characters, changing colors, adding underlines or changing the background, changing volume of sound or tune, utilizing twinkling characters or animated cartoon as guide, etc. Such kinds of practice have proved conducive to the improvement of learning efficiency.

4.3.5 Encouragement should be given to those conveying correct feedback, help to those conveying incorrect feedback. Further steps should also be taken to investigate the causes for mistakes.

4.4 Writing of script. Script consists of literal one and manufacturing one. Literal script describes the teaching contents and means of presentation of each link according to the sequence of teaching process. The main objective of literal script is to plan the organizational structure of the content in the teaching software, including teaching objective, learning objective, teaching practice, teaching tactics, means of manifestation, etc. In this way, knowledge to be taught is more clear. It is favorable to those who will make the teaching software. Literal script should be written by one who teaches the course. Writing script consists of several steps, such as review, introduction to new knowledge, establishment of teaching objective, evocation of interest and attention, principal part, handling of information and examples, concentration of attention, application of learning tactics exercise, conclusive part, summary and review, evaluating stage, assessment of assignment, etc.

## 5. The application of multimedia network technique to classroom teaching

5.1 Teaching of new words and expressions. When teaching and practicing important or difficult words and expressions, we can relate to context, activity and material object. Utilizing network technique means which can apply character, figure, animated cartoon, audio frequency and video frequency means simultaneously, we can full mobilize various kinds of sensory organs of students, so that they can well understand the meaning and usage. For example, 当时, 匆忙, 抓, 踩, 纠缠, 民族园, 蜿蜒, 黄昏, etc. As to words with cultural color, such as 武术, 太极拳, 胡同, 四合院, 饺子, 春联, 龙舟, etc. we can utilize audiovisual material to reveal their meanings to students. More information is conveyed in limited time. This method has proved effective by teaching practice and psychological experiment. Research of psychology indicates that people like perceiving external world through many kinds of organs. To know the same object, it takes 2.9 seconds through language expression, 1.5 seconds through figures, 1.2 seconds through photos, while only 0.7 seconds through material object. There is a comparison of memory quantity among information acquired through different sensory organs.

Chart 1 Comparison of memory quantity among information acquired through different sensory organs

Type of Sensory organs \ Time	3 hours	3 days
Hearing	60%	15%
Vision	70%	40%
Hear and see simultaneously	90%	75%

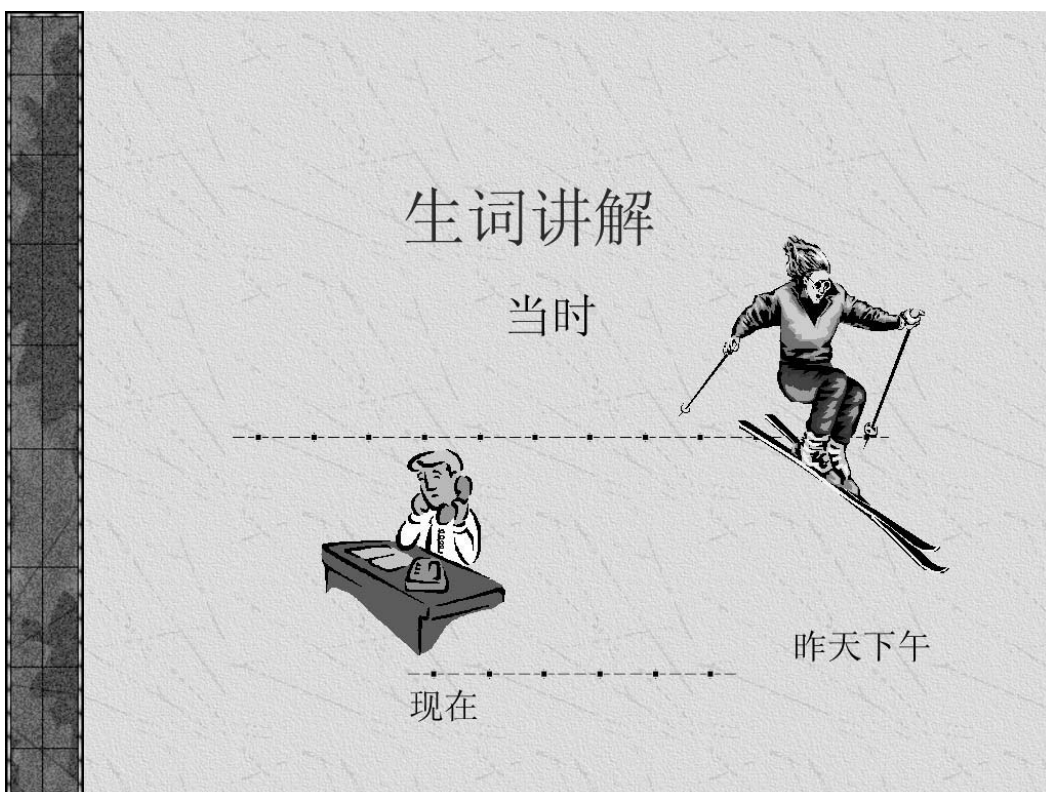


fig1



fig2

5.2 Teaching of grammar and text. Since multimedia network technique employs reticulated structure to organize information, grammar and text are integrated by reticulated structure in the courseware. From grammar point, teacher can link to other content concerned, or return to the part concerned in the text by tapping the mouse. Students can be reminded of the important parts of the text and grammar by the changes of color or typeface.





## 第63课 成语故事

fig3



## 课文 (一) 画蛇添足

从前有几个人得到一壶酒。这壶酒只够一个人喝，到底给谁喝呢？半天决定不了。有一个人提议说：

“我们每个人都在地上画一条蛇。谁先画完，这壶酒就谁喝。”

大家都同意这个办法，就拿树枝在地上画起  
来。



fig 4

5.3 To make the context. Applying multimedia network technique to making context, sound, picture and animated cartoon can be integrated to provide students with vivid and lively context. A great deal of time is saved, so that we can take use of the saved time on personalized teaching. After the collective practice led by teacher, students can go on practicing by oneself or by groups through courseware compiled in advance. If the exercise done is right, program will inform the student going on to do the next one. If it is wrong, teacher will give some instruction. However, not all mistakes need the instruction of teacher. For example, Students may make mistake by carelessness even if they know the usage of words or grammar. When compiling courseware, we can put mark on the place where students often make such kinds of mistakes in advance, give explanation and some repeated exercise. Once mistake occurs, system will point out it automatically and direct student to find out the cause and do the exercise concerned. Student should correct the mistake through his or her own effort. Such kind of initiative cognition can stimulate learning enthusiasm, thus deepen the impression.

Another example, when practicing articulation, student can imitate dynamic picture of the position of tongue until they can articulate correctly. It is better than articulation demonstrated by teacher again and again. Teacher only intervenes when students encounter real difficult point. Teacher can

also supervise the learning progress of students through program and intervene where students may run into problem according to his or her own understanding of students. As each student is carrying out personal practice through courseware simultaneously, such situation will not appear that most of the students are waiting while very few of them are being instructed by teacher. It is ensured that each student can make full use of classroom time through multimedia network technique.

5.4 Writing practice. Utilizing computer, students can write articles and send them to teacher through e\_\_mail. Teacher will correct them and send them back to students. All the articles can be made into a web page, with each article having a title on it. Students can look up any article , so as to learn good points from others and avoid making similar mistakes. Students get more knowledge through such kinds of writing practice.

5.5 Preview and review. Under traditional teaching condition, we could not guarantee that each student preview and review after class. We are short of powerful means to supervise majority of the students, which causes some of them form the idea of leaving things to chance, thus interfere with the smooth progress of teaching activity. Students differ greatly in individual condition. Words only a few students don't know may appear in the text, which is hard to avoid. Teacher will not explain these words, so students are required to remove the obstacle in advance. Therefore, preview should be taken seriously. To some students, reading is difficult. Some students cannot finish reading assignment conscientiously after class. We can put the reading material on the web page and design some questions at the end of each text. Students are required to deliver the answers to teacher through computer before class, so that teacher can find out whether students have understood the text. In doing so, preview and review are ensured.

## 6. Conclusion

Since multimedia network teaching has so many advantages, it has launched a challenge to traditional teaching and applied to teaching practice. However, we should not adopt an attitude of negating traditional teaching completely. Language teaching requires participation and practice, so that teacher should play the role of organizer. If a teacher only taps the mouse from beginning till end during class, even if the courseware is designed perfectly, it is difficult to get satisfactory effect. As a tool, multimedia network is only an assistant of teacher. We should make full and rational use of multimedia network technique according to our teaching objective and principle, so as to improve the teaching standard and keep up with steps of the times.

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